

WHAT IS CLAIMED IS:

1. A rubber-reinforced styrene transparent resin composition comprising a styrene copolymer reinforced with a rubber polymer, wherein the monomer composition of an acetone soluble resin component contained in the resin composition comprises 5 to 70% by weight of aromatic vinyl monomer (a1), 30 to 95% by weight of unsaturated carboxylic acid alkyl ester monomer (a2), 0 to 50% by weight of vinyl cyanide monomer (a3), and 0 to 50% by weight of another monomer copolymerizable with these monomers, and the acid value of the acetone soluble resin component is 0.01 to 1 mgKOH/g.

2. A rubber-reinforced styrene transparent resin composition according to Claim 1, comprising 10 to 95 parts by weight of copolymer (A) obtained by copolymerizing a vinyl monomer mixture (a), and 90 to 5 parts by weight of graft copolymer (B) obtained by graft-polymerizing a vinyl monomer mixture (c) in the presence of a rubber polymer (b).

3. A rubber-reinforced styrene transparent resin composition according to Claim 2, wherein each of the vinyl monomer mixture (a) and the vinyl monomer mixture (c) has an acid value of less than 0.01 mgKOH.

4. A rubber-reinforced styrene transparent resin composition according to Claim 1, wherein the total light transmittance is 50% or more.

5. A rubber-reinforced styrene transparent resin composition according to Claim 2, wherein the total light transmittance is 50% or more.

6. A rubber-reinforced styrene transparent resin composition according to Claim 3, wherein the total light transmittance is 50% or more.

7. A rubber-reinforced styrene transparent resin composition according to Claim 1, wherein in the composition distribution of weight ratios (ϕ_{ST}/ϕ_{MMA}) of the aromatic vinyl monomer (a1) and the unsaturated carboxylic acid alkyl ester monomer (a2), which constitute the acetone soluble resin component, 80% by weight or more of the acetone soluble resin component lies in the range of 0.75 to 1.2 times as large as the average weight ratio (ϕ_{ST}/ϕ_{MMA}).

8. A rubber-reinforced styrene transparent resin composition according to Claim 2, wherein in the composition distribution of weight ratios (ϕ_{ST}/ϕ_{MMA}) of the aromatic vinyl

monomer (a1) and the unsaturated carboxylic acid alkyl ester monomer (a2), which constitute the acetone soluble resin component, 80% by weight or more of the acetone soluble resin component lies in the range of 0.75 to 1.2 times as large as the average weight ratio (ϕ_{ST}/ϕ_{MMA}).

9. A rubber-reinforced styrene transparent resin composition according to Claim 3, wherein in the composition distribution of weight ratios (ϕ_{ST}/ϕ_{MMA}) of the aromatic vinyl monomer (a1) and the unsaturated carboxylic acid alkyl ester monomer (a2), which constitute the acetone soluble resin component, 80% by weight or more of the acetone soluble resin component lies in the range of 0.75 to 1.2 times as large as the average weight ratio (ϕ_{ST}/ϕ_{MMA}).

10. A rubber-reinforced styrene transparent resin composition according to Claim 1, wherein the difference in refractive index between the rubber polymer and the acetone soluble resin component is 0.03 or less.

11. A rubber-reinforced styrene transparent resin composition according to Claim 2, wherein the difference in refractive index between the rubber polymer and the acetone soluble resin component is 0.03 or less.

12. A rubber-reinforced styrene transparent resin composition according to Claim 3, wherein the difference in refractive index between the rubber polymer and the acetone soluble resin component is 0.03 or less.

13. A rubber-reinforced styrene transparent resin composition according to Claim 1, wherein each of the vinyl monomer mixtures (a) and (c) is a monomer mixture comprising 5 to 70% by weight of aromatic vinyl monomer (a1), 30 to 95% by weight of unsaturated carboxylic acid alkyl ester monomer (a2), 0 to 50% by weight of vinyl cyanide monomer (a3), and 0 to 50% by weight of another monomer copolymerizable with these monomers, and containing substantially no unsaturated carboxylic acid monomer (except the unsaturated carboxylic acid alkyl ester monomer (a2)) (a5).

14. A rubber-reinforced styrene transparent resin composition according to Claim 2, wherein each of the vinyl monomer mixtures (a) and (c) is a monomer mixture comprising 5 to 70% by weight of aromatic vinyl monomer (a1), 30 to 95% by weight of unsaturated carboxylic acid alkyl ester monomer (a2), 0 to 50% by weight of vinyl cyanide monomer (a3), and 0 to 50% by weight of another monomer copolymerizable with these monomers, and containing substantially no unsaturated carboxylic acid monomer (except the unsaturated carboxylic

acid alkyl ester monomer (a2)) (a5).

15. A rubber-reinforced styrene transparent resin composition according to Claim 3, wherein each of the vinyl monomer mixtures (a) and (c) is a monomer mixture comprising 5 to 70% by weight of aromatic vinyl monomer (a1), 30 to 95% by weight of unsaturated carboxylic acid alkyl ester monomer (a2), 0 to 50% by weight of vinyl cyanide monomer (a3), and 0 to 50% by weight of another monomer copolymerizable with these monomers, and containing substantially no unsaturated carboxylic acid monomer (except the unsaturated carboxylic acid alkyl ester monomer (a2)) (a5).

16. A rubber-reinforced styrene transparent resin composition according to Claim 1, wherein each of the vinyl monomer mixtures (a) and (c) is a monomer mixture comprising 5 to 40% by weight of aromatic vinyl monomer (a1), 30 to 80% by weight of unsaturated carboxylic acid alkyl ester monomer (a2), 10 to 50% by weight of vinyl cyanide monomer (a3), and 0 to 40% by weight of another monomer copolymerizable with these monomers, and the ratio of a triple sequence of acrylonitrile monomer units present in the acetone soluble resin component of the resin composition is 10% by weight or less relative to the acetone soluble resin component.

17. A rubber-reinforced styrene transparent resin composition according to Claim 2, wherein each of the vinyl monomer mixtures (a) and (c) is a monomer mixture comprising 5 to 40% by weight of aromatic vinyl monomer (a1), 30 to 80% by weight of unsaturated carboxylic acid alkyl ester monomer (a2), 10 to 50% by weight of vinyl cyanide monomer (a3), and 0 to 40% by weight of another monomer copolymerizable with these monomers, and the ratio of a triple sequence of acrylonitrile monomer units present in the acetone soluble resin component of the resin composition is 10% by weight or less relative to the acetone soluble resin component.

18. A rubber-reinforced styrene transparent resin composition according to Claim 3, wherein each of the vinyl monomer mixtures (a) and (c) is a monomer mixture comprising 5 to 40% by weight of aromatic vinyl monomer (a1), 30 to 80% by weight of unsaturated carboxylic acid alkyl ester monomer (a2), 10 to 50% by weight of vinyl cyanide monomer (a3), and 0 to 40% by weight of another monomer copolymerizable with these monomers, and the ratio of a triple sequence of acrylonitrile monomer units present in the acetone soluble resin component of the resin composition is 10% by weight or less relative to the acetone soluble resin component.

19. A rubber-reinforced styrene transparent resin

composition according to Claim 16, wherein the solubility parameter of the copolymer (A) is 10.5 to 12.5 (cal/ml)^{1/2}.

20. A rubber-reinforced styrene transparent resin composition according to Claim 17, wherein the solubility parameter of the copolymer (A) is 10.5 to 12.5 (cal/ml)^{1/2}.

21. A rubber-reinforced styrene transparent resin composition according to Claim 18, wherein the solubility parameter of the copolymer (A) is 10.5 to 12.5 (cal/ml)^{1/2}.

22. A rubber-reinforced styrene transparent resin composition comprising a resin composition obtained by mixing 90 to 5 parts by weight of graft copolymer (B), which is obtained by graft-polymerizing a vinyl monomer with a rubber polymer, with 10 to 95 parts by weight of copolymer (A) in a melt state in the step of continuous bulk polymerization or continuous solution polymerization of a vinyl monomer mixture (a), wherein in mixing the copolymer (A) and the graft copolymer (B), 0.1 to 30% by weight of pelletized thermoplastic resin (C) relative to the graft copolymer (B) is previously added to the graft copolymer (B) and mixed therewith in a melt or semi-melt state, and then mixed with the copolymer (A).

23. A rubber-reinforced styrene transparent resin composition according to Claim 22, wherein the pelletized thermoplastic resin (C) has an average particle diameter of 1 to 10 mm.